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ABSTRACT

The viability of persuasion theory as a framework for the assessment of program evaluation utilization was assessed. Independent variables studied included credibility, involvement, and role groups. More specifically, the research was designed to address three questions concerning: (1) the occurrence of peripheral involvement persuasive effects regardless of the impact of the evaluation report on its readers; (2) the occurrence of evaluator peripheral credibility cue effects independently of involvement effects; and (3) the differential sensitivity of high-level administrators and licensed evaluators to peripheral cue information. Subjects included 20 administrators working with local educational agencies in Louisiana and 51 program evaluators. The subjects' responses to simulated evaluation reports and questionnaires were assessed. Results indicate that evaluator credibility is perceived by report readers and that these perceptions may even affect counterargumentation. Furthermore, counterargument may lead to inaction or delay even when dealing with favorably received recommendations. The findings also indicate that issue-involvement intervention did not directly affect the perception of involvement; attitude change is a function of the extent and direction of cognitive responses; and program evaluators and high-level administrators are more similar than dissimilar in their perceptions of evaluation information. (TJH)

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THE EFFECT OF PERSUASION ON THE PERCEPTION
OF PROGRAM EVALUATION INFORMATION

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THE EFFECT OF PERSUASION ON THE PERCEPTION OF PROGRAM EVALUATION INFORMATION

As the importance of program evaluation has increased, problems related to utilization of the evaluation reports have been more widely recognized. The traditional view during the 1960's was that program evaluations provided information for action (Weiss, 1972). Evaluators expected that their reports would lead to major program change when problems were detected. Concern grew, however, because evaluators found that their efforts resulted in little direct utilization (Alkin, Daillak, & White, 1979, pp. 14-16; Thompson & King, 1981, pp. 3-4). As a result, program evaluation theorists began to question whether these action expectancies were realistic. They also sought to determine if the use and non-use of evaluations by decision makers had discernible patterns. What emerged was a new and expanded definition of utilization and of how utilization related to the complexities of organizational decisions.

One of the first to acknowledge a problem with the action concept was Patton et al. (1977), who noted that "evaluation literature has focused on too narrow a definition of evaluation research impacts" (p. 161). The perception of underutilization ultimately led evaluation theorists to redefine utilization (Brown, Newman, & Rivers, 1984; Leviton & Hughes, 1981). Two major distinctive definitions for program evaluation utilization surfaced. Program utilization is viewed from both

a narrow and a broad perspective. If evaluation information is meant for immediate and direct use in improving the quality of a program, then use of the narrow perspective is indicated. However, when evaluation findings are used as supplemental information for future decisions, the broader perspective of use is more appropriate. Additional research from the late 1970's also indicates that the broader perspective is becoming more commonly used by evaluators (Alkin, Daillak, & White, 1979; Knorr, 1977; Patton, 1978). With the expanding definitions, utilization becomes "less dramatic and more difficult to explicitly measure and demonstrate. It represents a view of evaluation in which the role of human interaction in the communication process is given more credance" (Brown & Braskamp, 1980, p. viii).

Because of the concern for program evaluation utilization, researchers (Leviton & Hughes, 1981, p. 528) have systematically differentiated several categories of utilization: instrumental, conceptual, and persuasive. Instrumental use is an ideal. In instrumental use an evaluation is completed and direct discernible changes occur. Conceptual use of research information was defined by Rich (1977) as "influencing a policymaker's thinking about an issue without putting information to any specific, documentable use" (p. 200).

Persuasive use "draws on evaluation evidence in attempts to convince others to support a political position, or to defend such a position from attack" (Leviton & Hughes, 1981, p.

528). But as Patton (1978) states, "The traditional academic values of many social scientists lead them to want to be nonpolitical in their research. Yet they always want to affect government decisions. The evidence is that they cannot have it both ways" (p. 46).

Evaluators have a responsibility to provide not only a comprehensive quality evaluation report but the additional responsibility of increasing the utilization of evaluation. So more evaluators have now come to appreciate House's (1977, p. 5) position that one of the primary functions of evaluations is to persuade. For example, following a five-year series of studies, Newman, Brown and Braskamp (1980) argued that the "evaluation reporting process can be viewed as analogous to a persuasive communication message" (p. 29). Thompson (1981), in his review of communication theory and program evaluation, emphasized applying theoretically grounded persuasion principles to establish a possible relationship between persuasive effort and program evaluation utilization.

The purpose of the present study was to investigate the effects of several variations on perceptions of evaluation information. High-level school district administrators and licensed program evaluators were the participants in the study. The study was grounded in contemporary persuasion theory, and the experimental variations examined were selected on this basis.

Contemporary Persuasion Theory

Four primary theoretical approaches constitute

contemporary persuasion theory. These include learning, consistency, perceptual, and functional approaches (Shelby, 1986, p. 10). The first approach, learning theory, attempts to explain or predict the relationship between a stimulus and a response (Staats, 1967, p. 373). The stimulus may be the source, the message, or the channel. The response is how the receiver reacts to the stimulus.

Several persuasion models have developed from learning theory. Two of the most commonly used are the information processing and cognitive response models (Shelby, 1986, p. 11). Information processing models developed by Hovland and associates received much attention in the 1950's and 1960's. A more recent theory, the cognitive response model developed by Brock (1967) and Greenwald (1968) and refined by Petty (1977), focuses on the receiver's cognitive response to a message. The theory hypothesizes that thoughts generated by the initial persuasive communication influence the receiver's attitude concerning acceptance or rejection of the message. The persistence of attitude is a function of the elaboration created by the cognitive responses to the message. The principles of this theory provided one important framework for the present study.

Consistency theory, a second approach to persuasion, focuses on the relationship between the stimulus and the receiver's frame of reference. This is in contrast to learning theory, which focuses on the stimulus and the response. How much a receiver has stored in memory about the message content

and/or the source affects the perceived persuasive intent.

Dissonance, a construct of consistency theory, has been applied to persuasion theory. Dissonance involves the inconsistency found to exist when new environmental phenomena confront previously formed, internally consistent knowledge, opinions, and attitudes of a person (Festinger, 1957). When dissonance occurs, tension or discomfort develops which will then motivate the person to achieve consistency or consonance. For example, cognitive dissonance occurs when a person who smokes is shown a graphic film of the health perils of smoking. To relieve tension, the person rationalizes that quitting smoking leads to weight gain which is also hazardous to health. Smoking is continued and the person has achieved consonance with the habit.

The third major theoretical approach to persuasion is the perceptual approach. It emphasizes how receivers perceive the message. The perceptual approach focuses in particular upon the receiver's attitude or frame of reference about the message. The approach emphasizes that it is the perception of the message rather than the actual message that affects attitude change.

Fourth, the functional approach to persuasion states that potential persuasive effects must be relevant to the needs of the receiver (Katz, 1960). Katz hypothesized that attitudes serve at least one of the following functions: adjustment, ego-defense, value-expression, and knowledge acquisition (p. 461). An important theory in the functional approach,

compliance-gaining, assumes that power is necessary for persuasion to occur (Carlsmith, Collins & Helmreich, 1966, p. 333).

The Elaboration Likelihood Model

Given the various theoretical approaches to persuasion and the diversity of data on the traditional source, message, receiver, and channel variables, Petty and Cacioppo (1986) developed a general theory of attitude change called the Elaboration Likelihood Model (ELM). The ELM attempts to integrate the many conflicting findings and theories from previous work into one viable framework.

"Elaboration" is defined as the degree to which a person cognitively processes the message. "Likelihood" refers to the person's ability and motivation. Therefore, if a person has the ability and is motivated to process issue-relevant information, elaboration likelihood is high. Conversely, if ability and motivation are not present, elaboration likelihood is low.

The ELM divides the previous empirical findings and theories into two "routes to persuasion" (Petty & Cacioppo, 1986, p. 3): central and peripheral. Within the central route a receiver is led by ability and motivation to cognitively consider the issues relevant to the message. The theorists hypothesize that the effort involved in mentally processing information makes persuasion through the central route more permanent and more resistant to change than the peripheral route. A central route is involved when a voter critically

analyzes the political platform of a candidate rather than the candidate's projected charisma.

Conversely, in the peripheral route a receiver is led to react to a simple cue, rather than by cognitively processing issues. The credibility of the source, the topic of the communication, the attractiveness of the source, the length of the message, and the media type are only a few types of cues. In the previous example, the peripheral route might involve voters watching a TV commercial and focusing on the candidate shown with a happy family.

One of the basic differences between central and peripheral routes is the permanency of their effects on attitude change. Peripheral cues are easier to process, but because they lack cognitive press they are less resistant to competing messages. However, the power of cues can lead to persuasion even in the absence of issue-relevant information. For example, an automobile dealer may ignore the relative quality of a product but still persuade the buyer with the simple message, "Buy American." Conversely, central arguments are difficult to establish but do result in longer lasting attitudinal change. The ELM predicts that when both the source and message contain combinations of central issue-relevant arguments and peripheral cues, the power to persuade is increased.

The ELM also indicates that the relative effectiveness of persuasion techniques is, in part, a function of the characteristics of the receiver. Receivers may be

differentiated by bias, motivation, prior knowledge, locus of control, and intelligence. Additionally, different receivers have different needs for information and different kinds of decisions to make (Newman, Bull, Brown, & Rivers, 1986). In the present study different receivers, high-level administrators and certified program evaluators, were the audience.

Literature on the comparison of administrator and evaluator views of evaluation is scarce. Thompson and Miller (1984) explored these two perceptions of evaluation by employing Meltsner's model. The research question was whether administrators and evaluators had similar views of evaluation and the evaluator's role. Two of the Q-technique factors consisted of a mix of both groups. The results suggest that some administrators and evaluators hold similar views of evaluation. Also, since most administrators grouped in the first two subject clusters, the results suggest that administrators are more homogeneous in their views of program evaluations. The views of the evaluators were not as consistent. Presumably evaluators and administrators can communicate more adequately if they understand each other's views of program evaluation. The present study was conducted in part to compare the two groups' perceptions of evaluation information.

Two persuasive elements were the primary focus in the present study. These were source credibility and issue involvement. With respect to source credibility, attribution

theory suggests that source characteristics have an impact on message acceptance or rejection. The source factor can affect persuasion in several different ways: serving as arguments, serving as cues, or affecting the extent or direction of issue and argument processing (Petty & Cacioppo, 1986, p. 47).

Under varying conditions of high or low elaboration likelihood, the source factor can affect attitude change. When a person is unmotivated and unable to evaluate message arguments, simple cues such as source credibility are relied upon. Thus, under low elaboration likelihood a highly credible source tends to enhance persuasion. But when an audience member is highly motivated and able to cognitively process the issue-relevant arguments, the effects of source credibility tend to disappear. These principles have been corroborated in experimental research (Maddux & Rogers, 1980; Pallak & Francia, 1985).

A second variable, issue involvement, is a motivational variable affecting elaboration likelihood (Petty & Cacioppo, 1986, p. 81). Issue involvement, also referred to as personal relevance, concerns the extent to which the topic of the message is of relevance to the receiver. High personal relevance of a policy change in school dress code occurs if the change takes place in a receiver's own school. Low personal relevance might be typified by a change taking place in another state.

Involvement is based on social judgment theory which posits latitudes of acceptance, rejection, or noncommitment.

After reviewing the persuasion research, Petty and Cacioppo (1986, p. 82) found that few researchers had considered the effects of issue-relevant arguments on persuasion. For example, issue relevance on the topic of a new exam policy might be high for some undergraduate students but the topic of import duties on raw silk might be less relevant to these students.

If the information is consistent with the subject's initial opinion, processing of the strengths of the message will occur. However, if the information is inconsistent with the subject's opinion, high relevance topics will generate counterarguments to the message. Consequently, Petty and Cacioppo (1986) incorporated personal relevance as a central principle to their ELM. As personal relevance increases, people become more motivated to work harder to process issue-relevant arguments (Petty & Cacioppo, 1979a, p. 1915). The more involved the receiver is in the outcome, the more resistant the receiver will also be to changing attitudes. Again, previous research supports these theoretical principles (Norton, 1986; Petty & Cacioppo, 1979b).

In summary, the literature portrays persuasion theory as a viable framework for investigation regarding more effective program evaluation utilization. Several studies have been reported involving persuasion in studies of program evaluation utilization. For example, a series of studies conducted by Brown and Braskamp (1980) presented evidence suggesting that persuasion theory provides a viable framework for studying

program evaluation utilization.

The present study employed a 2 x 2 x 2 (credibility manipulation x involvement manipulation x role group) design to investigate the effects of the three independent variables on ascribed evaluator credibility and participant issue involvement. Specifically, the study was designed to address three research questions. First, will peripheral involvement persuasive effects occur even if evaluation information does not directly and immediately impact evaluation report readers? Second, will evaluator peripheral credibility cue effects occur independently of involvement effects? Third, will high-level administrators and licensed evaluators be differentially sensitive to peripheral cue information? A qualitative component of the investigation focused on participant thought processes when reading the evaluation report. The thought processes of interest were both counterargument and cognitive processing of the central evaluation message. Cognitive response theory (Brock, 1967; Greenwald, 1968; Petty, 1977) suggests that cognitive press is an important aspect of persuasive effort.

Method

Subjects

The subjects in the present study were either high-level administrators or program evaluators. Administrators were all 123 Louisiana local education agency personnel with "superintendent," "assistant superintendent," "associate superintendent," or "deputy superintendent" in their titles.

The 123 high-level administrators represented the entire population of high-level administrators across the state of Louisiana.

Louisiana is somewhat unique in that the state provides for formal licensure of educational program evaluators. Program evaluators in the present study were selected from all certified program evaluators currently employed in Louisiana. Three hundred evaluators were randomly selected from the total state list of 443.

Evaluation reports and questionnaires were mailed to a combined total of 423 subjects. Questionnaires for 11 evaluators were returned as non-deliverable. Questionnaires were received from 20 of the 123 high-level administrators for a response rate of 16.3%. The response rate for the evaluators was similar with 51 out of 289 responding (17.6%). The total response rate ($n = 71$) for the combined groups was 17.2%.

Response rates on these orders are not unusual in this sort of research (Kerlinger, 1986, p. 380). To an extent response rate was viewed somewhat as a cost of greater external validity. Previous empirical studies (Thompson & Levitov, 1983) of evaluation use research indicate that too many researchers have employed samples of convenience of university graduate students in their research. In the present study a concerted effort was made to gather data from a statewide pool of people who were actually high-level administrators or certified program evaluators.

However, it is important to try to establish that the

final sample was reasonably representative of the population as a whole. In the present study geographic area was available as a variable that could be used as for these purposes, without compromising subject anonymity.

The geographic distribution of the role groups is presented in Figure 1. The U. S. Postal Service divides the state into nine geographical areas by zip codes with each area designated by a large city. The sample represented all areas. Responses were received from seven of the nine areas. The map suggests that within the seven areas the rate of returns was roughly representative of the distribution of the role groups.

INSERT FIGURE 1 ABOUT HERE

Procedure

A simulated report was utilized to investigate the persuasive effects of source credibility and issue involvement on message acceptance. In order to make the report believable, a nonprofit company was created. The company's name was printed on professional stationary. The simulated evaluation described a five-year "pilot" study of a career option program. The report described the program, objectives, and the evaluation results and recommendations. Hypothetically, the five-step career option plan had been implemented in seven school districts of a southern state. The report was identical for all subjects. Subjects were asked to help evaluate the quality of the report before the report was

to be distributed to other educators.

The experimental manipulation occurred in the cover letter, and involved the variables of source credibility and issue involvement. The inclusion of the intervention in the cover letter was to make the manipulation less obtrusive and to minimize reactivity.

Our operational descriptions for the variables of source credibility and issue involvement have been used in several previous studies (Maddux & Rogers, 1980; Norton, 1986; Petty, Cacioppo, & Heesacker, 1981). These descriptions were adapted for the present study. The evaluator titles, "researcher" and "art specialist," were determined from previous evaluation use research to have high and low evaluator credibility, respectively (Braskamp, Brown, & Newman, 1978). In the present study the evaluator described as an art specialist was defined as a specialist in the field of music. In the high credibility condition the cover letter described the evaluator as a professor of educational research.

Issue involvement, also referred to as personal relevance, was manipulated in the cover letter as well. Both involvement conditions were designed to not involve direct immediate impacts on the subjects. The evaluation report presented to the more highly-involved subjects was preceded by information that the subject was to help evaluate the quality of the report before the report was to be distributed to educators, civic organizations, and government officials within Louisiana and other southern states. Thus, the possibility of future

involvement within the same geographic region was indicated.

The message for the low involvement group was preceded by similar instructions. However, subjects in the low involvement condition were told that the results were to be distributed in Wisconsin, and that results of the evaluation would not be employed for some time. Thus, involvement was portrayed as being remote in both time and place.

Previous empirical research has clearly established that stark contrasts of no involvement versus immediate, direct, personal involvement do produce discernable differences in message processing. But direct immediate involvement is not characteristic of real evaluation settings in which decision responsibility is often shared and in which movement toward decisions is often incremental. Our purpose in designing the involvement intervention was to produce a more ecologically valid intervention involving a more realistic contrast. Such research may also be useful in defining the limen at which involvement effects occur.

An 11-point Likert scale was employed to assess the effectiveness of the manipulation of source credibility and issue involvement. The same scale has been used in previous research (Norton, 1986; Petty & Cacioppo, 1979; Pallak & Francia, 1985; Swasy & Munch, 1985). The questionnaire included 13 items to measure direct manipulation effects, divided into the following categories: five items measuring credibility, four items to assess adequacy of involvement, and the remaining four items in this section acted as fillers used

to lessen reactivity. The credibility and involvement items were summed to form two overall composite scores that measured each dependent variable. Four items in this section were reversed phrased to minimize response set.

Other procedures similar to those utilized in studies by Petty and Cacioppo (1979a, p. 1918) and Norton (1986, p. 43) were also followed. Thus, subjects were also asked to indicate their personal attitude about the topic, i.e., career option plans, their agreement with the evaluator's recommendations, and listed the thoughts they had while reading the report.

Thought listing is a cognitive response and can be utilized as an important dependent variable (Cacioppo & Petty, 1981), as suggested previously. Assessing cognitive thought responses is a form of attitude measurement. In the present study cognitive responses were defined as "those thoughts that pass through a person's mind as he or she anticipates, receives, or reflects upon a message designed to change beliefs, attitudes, or behaviors" (Cacioppo & Petty, 1981, p. 310). The technique, developed by Brock (1967) and Greenwald (1968), has received considerable empirical support (Chaiken, 1980; Petty, Harkins, & Williams, 1980; Swasy & Munch, 1985). In thought listing, the subject attempts to relate new information to existing knowledge. Positive, negative, or neutral thoughts about the target issue may be generated. To the degree that the person has positive cognitive responses (favorable thoughts), the more the person will agree with the communication. However, if the person generates more negative

cognitive responses (unfavorable thoughts), then the person may disagree with the communication.

Results

Preliminary analyses were performed to test the reliability of each of four scales. The scales were: credibility, with five items; involvement, four items; attitude, four items; and five items measuring reaction to report recommendations. The alpha reliability coefficients were .80 for credibility, .93 for involvement, and .88 for attitude. These reliability coefficients are sufficiently high to allow the detection of systematic response variance and thus statistical significance. However, the recommendation scale's alpha reliability coefficient was .65. The result was considered an artifact of the diverse content in the recommendation items, and so separate analyses were conducted across each of these five items. Descriptive statistics on the credibility and involvement conditions are presented in Table 1.

INSERT TABLE 1 ABOUT HERE

The study's first research question asked whether peripheral involvement persuasive effects occur even if evaluation information does not directly and immediately impact evaluation report readers? "Involvement" was measured using four 11-point Likert-scale items (e.g., Norton, 1986; Swasy &

Munch, 1985) with the extreme descriptive anchors, "agree strongly" or "disagree strongly". The mean for the high involvement condition was 21.78 (SD = 13.51) and the mean for the low involvement condition was 22.50 (SD = 14.44). A univariate test of these differences was not statistically significant ($F(1,63) = .05, p > .05$). This finding indicates that the subjects did not perceive any difference between the high and low involvement conditions. No other main or interaction effects were statistically significant ($\alpha = .05$) for this dependent variable. Since the scale ranged from four (most involved) to 44 (least involved), and the means for the two involvement conditions were near the middle of this range, both subject groups were moderately involved in processing the evaluation report information.

The study's second research question asked, do evaluator peripheral credibility cue effects occur independently of involvement effects? As noted previously, the subjects rated the extent to which they found the source "credible". The rating system utilized an 11-point scale where "1" indicated "agree strongly" and "11" indicated "disagree strongly." Five statements were combined so that maximum acceptance of the source equalled five and least acceptance equalled 55. Subjects in the high credibility condition rated the evaluation report source as being more credible ($M = 23.64, SD = 8.00$) than subjects in the low credibility condition ($M = 33.19, SD = 9.49$). This difference in means was statistically significant ($F(1,63) = 21.40, p < .001$); the correlation ratio effect size

for this analysis was 24.1% (1660.95/6893.12). In a 2 x 2 x 2 factorial analysis of variance, no other univariate null hypotheses involving effects on the credibility dependent variable were rejected.

The study's third research question asked, are high-level administrators and licensed evaluators differentially sensitive to peripheral cue information? To address the third research question, and to address the first two research questions in a multivariate context (Fish, 1988), a 2 x 2 x 2 MANOVA involving the two dependent variables, credibility and involvement, was conducted. Only the null hypothesis involving the credibility main effect was rejected ($\lambda = .77$, $df = 2/62$, $p < .001$).

Ancillary analyses were performed to test for other effects that were also of interest in the study. Individual analyses were computed for each of the five recommendation items, rather than for a total recommendation score, since these scores were not very interrelated, as noted previously. The results indicated that the subjects were generally positive in their acceptance of the report recommendations. Thus, subjects were open to the topic in the evaluation report.

Scores on the credibility and involvement scales were negligibly related ($r = -.07$, $p > .05$). Scores on two of the recommendation items were related to perceptions of evaluator credibility ($r = .30$; $r = .21$). The multiple correlation ($R = .36$) between scores on the credibility scale and the five recommendation items was not statistically significant ($F = 1.97$, $df = 5/65$, $p = .09$). Scores on the involvement scale

were significantly related to scores on two recommendation items, one ($r = .40$) also significantly associated with the involvement scale, and another recommendation item ($r = .21$). The multiple correlation ($R = .48$) between scores on the involvement scale and the five recommendation items was statistically significant ($F = 4.02$, $df = 5/65$, $p < .05$).

The second series of ancillary analyses was performed on the attitude scale. Since the four items produced reasonably internally consistency scores (alpha reliability = .88), these analyses employed summated scale scores. The three-way factorial analysis of variance on attitude toward career option plans involved no statistically significant main effects or interactions. The findings indicated that the attitudes toward career option plans were similar across design conditions. The grand mean (13.56; $SD = 7.64$) indicated a moderately positive attitude toward career option plans, since these items were rated on a 9-point scale (lower scores being more favorable) such that total scale scores therefore ranged from four to 36.

The third ancillary analysis involved a primary purpose of the study. This analysis focused on the data from the thought-listing procedure, and was grounded in the cognitive response model (Petty, 1977), as noted previously. According to the Elaboration Likelihood Model (ELM), persuasion is affected by the extent that subjects cognitively process issue-relevant information contained in a message. Thought listing is the recommended procedure used to assess how much message processing the subjects conducted (e.g., Cacioppo &

Petty, 1981). Data were collected on the number of favorable, unfavorable, and neutral or irrelevant thoughts generated by the subjects toward the evaluation. Our procedures were again modelled on those employed in previous research.

To obtain an indication of the favorableness of the cognitions, cognitive response ratings were summed. For example, two positive thoughts, three negative thoughts, and two neutral thoughts would sum to -1. An analysis of variance on the cognitive response data yielded a statistically significant main effect. The main effect for the credibility manipulation indicated that role groups produced more counterarguments, i.e., negative arguments, when the source was perceived as low credible ($M = -1.68$) than when the source was perceived as highly credible ($M = -0.41$) ($F(1,63) = 5.74, p < .05$).

A second cognitive response focused on the total number of issue-relevant thoughts generated in different experimental conditions. The number was obtained by simply adding the number of non-neutral issue-relevant thoughts generated by each subject. For example, two positive, three negative, and two neutral thoughts would add to five total non-neutral thoughts. There were less thoughts produced for a highly credible source ($M = 1.97, SD = 1.46$) than for a source with low credibility ($M = 3.26, SD = 2.38$) ($F(1,63) = 8.03, p < .01$). A low credible source generated more total counterarguments than a high credible source. Additionally, a three-way interaction of credibility by involvement by role group yielded a

statistically significant effect ($F(1,63) = 6.14, p < .02$).

Discussion

Conclusions important to the utilization of program evaluations may be drawn from the present study. First, the study's research question concerning the detection of source credibility information was supported by the findings of this study. The findings were in agreement with those of Hovland and Weiss (1951) who observed that source credibility is attended to by subjects. Also, the source credibility findings were in agreement with those in the related program evaluation research of Brown, Braskamp, and Newman (1978).

These findings suggest the importance of attending to Standard A2 of the Joint Committee on Standards for Educational Evaluation (1981, pp. 24-26). This standard requires that "The persons conducting the evaluation should be both trustworthy and competent to perform the evaluation, so that their findings achieve maximum credibility and acceptance." The results of the present study, as reported in Table 1, suggest that both evaluators and high-level administrators do attend to information about evaluator experience and job title when making judgments about evaluator credibility.

The standardized effect size for the credibility intervention on perceptions of evaluator credibility was 1.09 $((33.19 - 23.64)/((9.49 + 8.00)/2))$. The comparable effect sizes for high-level administrators and certified program evaluators were 1.48 and 1.00, respectively. These are very large effect sizes.

Second, the results of the present study indicated that the issue-involvement intervention failed to directly affect perception of involvement, as noted previously and also reported in Table 1. This finding is noteworthy given recent research which has indicated that issue involvement is an important motivational variable in changing how people cognitively respond to information (Petty & Cacioppo, 1986; Greenwald, 1968).

This finding is particularly noteworthy given the multiple correlation ($R = .48$) between scores on the involvement scale and the five evaluation recommendations. This relationship was greater than the association ($R = .36$) between the credibility scale and the recommendations. Of course, it is not possible to determine conclusively whether involvement affects reaction to recommendations or preferences for certain recommendations yield greater involvement. However, these results do suggest the importance of understanding involvement phenomena in an evaluation context.

More studies emphasizing ecologically valid involvement manipulations are needed if we are to understand the subtle influences on involvement in a reality in which authority is shared and change is incremental. What are not needed are more studies offering stark but unrealistic contrasts of involvement conditions.

The subtlety of involvement dynamics was indicated in an indirect way by the cognitive response data. The target issue appeared to be of interest due to the extent of cognitive

responses. Subjects in the high credibility groups were less likely to counterargue than the subjects in the low credibility groups. Also, subjects tended to make fewer overall responses if they perceived the source to be credible.

Third, the findings of the present study supported the hypothesis that attitude change is a function of the extent and direction of cognitive responses. For all groups, more of the thoughts elicited were counterarguments to career option plans. But counterarguments were even greater for the low credibility condition than for the high credibility condition. This finding is also partially explained by dissonance theory (Festinger, 1957), which posits that inconsistency creates tension until the individual resolves the conflict. When a source is perceived to have little credibility, knowledgeable subjects with more strongly held prior opinions can be expected to generate counterarguments. However, if the source is perceived to be highly credible, fewer counterarguments can be expected.

Overall, the results consistently indicate that certified program evaluators and high-level administrators are more similar than dissimilar in their perceptions of evaluation information. Both role groups were aware of source credibility. Evaluators that were perceived to be underqualified were not as trusted by the role groups, and distrust led to counterarguments, especially if the communication was negatively perceived. Counterarguments are particularly important in an evaluation context, because these

cognitive responses may arise in response to a written evaluation report or when the evaluator is not present to respond to counterargument.

The results in the present study suggest that evaluator credibility is perceived by report readers, and that these perceptions may even affect counterargumentation. Furthermore, counterargument may lead to inaction or delay even when dealing with favorably received recommendations. Clearly, these results suggest that evaluators must actively and systematically endeavor to present themselves to administrators as being credible sources of information, and evaluators must consider the potential effects of counterarguments when writing their reports.

References

- Alkin, M. C., Daillak, R., & White P. (1979). Using evaluations: Does evaluation make a difference? Beverly Hills: SAGE.
- Brock, T. C. (1967). Communication discrepancy and intent to persuade as determinants of counterargument production. Journal of Experimental Social Psychology, 3, 296-309.
- Brown, R.D., & Braskamp, L. A. Summary: Common themes and a checklist. In L. A. Braskamp & R. D. Brown (Eds.) Utilization of evaluation information. San Francisco: Jossey-Bass, 1980.
- Brown, R. D., Braskamp, L. A., & Newman, D. L. (1978). Evaluator credibility as a function of report style: Do jargon and data make a difference? Evaluation Quarterly, 2, 331-341.
- Brown, R. D., Newman, D. L., & Rivers, L. S. (1984). A decisionmaking context model for enhancing evaluation utilization. Educational Evaluation and Policy Analysis, 6, 393-400.
- Cacioppo, J. T., & Petty, R. E. (1981). Social psychological procedures for cognitive response assessment: The thought-listing technique. In T. Merluzzi, C. Glass, & M. Genest (Eds.), Cognitive assessment. (pp. 309-342). New York: Guilford.
- Carlsmith, J. M., Collins, B. E., & Helmreich, R. L. (1967). Studies in forced compliance: The effect of

- pressure for compliance on attitude change produced by face-to-face role playing and anonymous essay writing. In R. Rosnow & E. J. Robinson (Eds.), Experiments in persuasion (pp. 333-346). New York: Academic Press. (Reprinted from Journal of Personality and Social Psychology, 1965, 4, 1-13)
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. Journal of Personality and Social Psychology, 39, 752-766.
- Festinger, L. (1957). A theory of cognitive dissonance. Evanston, IL: Row, Peterson & Company.
- Fish, L. (1988). Why multivariate methods are usually vital. Measurement and Evaluation in Counseling and Development, 21, 130-137.
- Greenwald, A. G. (1968). Cognitive learning, cognitive response to persuasion and attitude change. In A. G. Greenwald, T. C. Brock, & T. M. Ostrom (Eds.), Psychological foundations of attitudes (pp. 147-170). New York: Academic Press.
- House, E. R. (1977). The logic of evaluative argument. Los Angeles: Center for the Study of Evaluation. (ERIC Document Reproduction Service No. ED 156 719)
- Hovland, C. I., & Weiss, W. (1967). The influence of source credibility on communication effectiveness. In R. L. Rosnow & E. J. Robinson (Eds.), Experiments in persuasion (pp. 9-24). New York: Academic. (Reprinted from Public Opinion Quarterly, 1951, 15, 635-650)

- Joint Committee on Standards for Educational Evaluation.
(1981). Standards for evaluations of educational programs, projects, and materials. New York: McGraw-Hill.
- Katz, D. (1967). The functional approach to the study of attitudes. In M Fishbein (Ed.), Attitude theory and measurement (pp. 457-468). New York: John Wiley.
(Reprinted from Public Opinion Quarterly, 1960, 163-204)
- Kerlinger, F. N. (1986). Foundations of behavioral research (3rd ed.). New York: Holt, Rinehart and Winston.
- Knorr, K. D. (1977). Policymakers' use of social science knowledge: Symbolic or instrumental? In C. Weiss (Ed.), Using social research in public policy making (pp. 165-182). Lexington, MA: D. C. Heath.
- Leviton, L. C., & Hughes, E. (1981). Research on the utilization of evaluation. Evaluation Review, 5, 525-548.
- Maddux, J. E., & Rogers, R. W. (1980). Effects of source expertness, physical attractiveness, and supporting arguments on persuasion: A case of brains over beauty. Journal of Personality and Social Psychology, 39, 235-244.
- Newman, D. L., Brown, R. D., & Braskamp, L. A.
Communication theory and the utilization of evaluation.
In L. A. Braskamp & R. D. Brown (Eds.), Utilization of evaluative information (pp. 29-35). San Francisco:

- Jossey-Bass, 1980.
- Newman, D. L., Bull, K. S., Brown, R. D., & Rivers, L. S. (1986). Locus of control as an influencer of school evaluation needs. Evaluation Review, 10, 536-551.
- Norton, L. W. (1986). Persuasive message effects on individuals versus interacting groups (Doctoral dissertation, Texas Tech University, 1986). Dissertation Abstracts International, 47, 1792B.
- Pallak, S. R., & Francia, R. (1985). Communicator-related and message-related thoughts as mediators of the influence of communicator credibility on persuasion. Paper presented at the annual meeting of the Eastern Psychological Association, Boston. (ERIC Document Reproduction Service No. ED 262 451)
- Patton, M. Q. (1978). Utilization-focused evaluation. Beverly Hills: Sage.
- Patton, M. Q., Grimes, P. S., Guthrie, K. M., Brennan, N. J., French, B. D., & Blyth, D. A. (1977). In search of impact: An analysis of the utilization of federal health evaluation research. In C. H. Weiss (Ed.), Using social research in public policy making (pp. 141-164). Lexington, MA: D. C. Heath.
- Petty, R.E. (1977). A cognitive response analysis of the temporal persistence of attitude changes induced by persuasive communications (Doctoral dissertation, Ohio State University, 1977). Dissertation Abstract International, 38, 3961B. (University Microfilms

No. 77-31,952)

- Petty, R. E., & Cacioppo, J. T. (1979a). Issue involvement can increase or decrease persuasion by enhancing message-relevant cognitive responses. Journal of Personality and Social Psychology, 37, 1915-1926.
- Petty, R. E., & Cacioppo, J. T. (1979b). Effects of forewarning of persuasive intent and involvement on cognitive responses and persuasion. Personality and Social Psychology Bulletin, 5, 173-176.
- Petty, R. E., & Cacioppo, J. T. (1986). Communication and Persuasion. New York: Springer-Verlag.
- Petty, R. E., Cacioppo, J. T., & Heesacker, M. (1981). Effects of rhetorical questions on persuasion: A cognitive response analysis. Journal of Personality and Social Psychology, 40, 432-440.
- Petty, R. E., Harkins, S. G., & Williams, K. D. (1980). The effects of group diffusion of cognitive effort on attitudes: An information-processing view. Journal of Personality and Social Psychology, 38, 81-92.
- Rich, R. F. (1977). Uses of social science information by federal bureaucrats: Knowledge for action versus knowledge for understanding. In C. Weiss (Ed.), Using social research in public policy making (pp. 199-212). Lexington, MA: D. C. Heath.
- Shelby, A. N. (1986). The theoretical bases of persuasion: A critical introduction. The Journal of Business Communication, 23, 5-29.
- Staats, A. W. (1967). An outline of an integrated learning

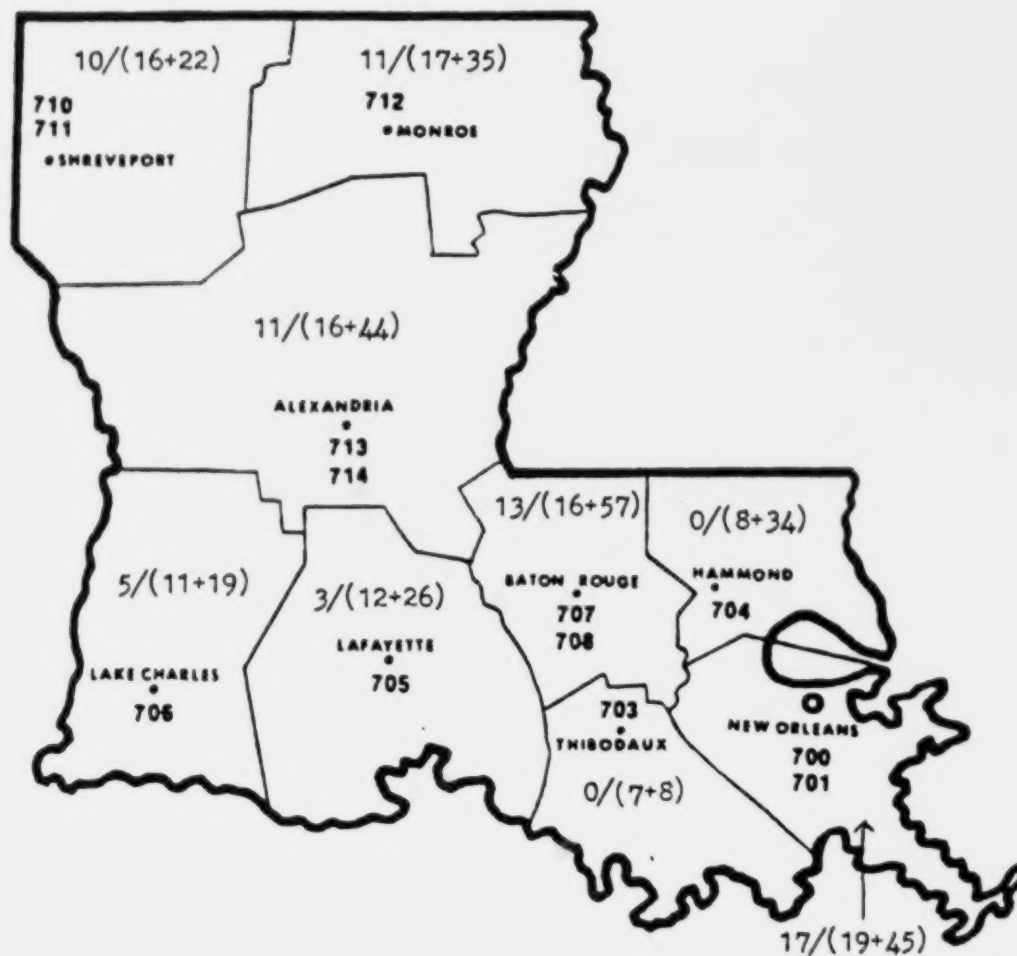
- theory of attitude formation and function. In M. Fishbein (Ed.), Attitude theory and measurement (pp. 373-376). New York: John Wiley.
- Swasy, J. L., & Munch, J. M. (1985). Examining the target of receiver elaborations: Rhetorical question effects on source processing and persuasion. Journal of Consumer Research, 11, 877-886.
- Thompson, B. (1981, October). Communication theory as a framework for evaluation use research: Evaluation as persuasion. Paper presented at the annual meeting of the Evaluation Network, Austin. (ERIC Document Reproduction Service No. ED 209 330)
- Thompson, B., & King, J. A. (1981). Evaluation utilization: A literature review and research agenda. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles. (ERIC Document Reproduction Service No. ED 199 271)
- Thompson, B., & Levitov, J. E. (1983). Quantitative analysis of previous research on use of evaluation. Psychological Reports, 53, 215-221.
- Thompson, B., & Miller, L. A. (1984). Administrators' and evaluators' perceptions of evaluation. Educational and Psychological Research, 4, 207-219.
- Weiss, C. H. (1972). Utilization of evaluation: Toward comparative study. Evaluating action programs. Boston: Allyn & Bacon.

Table 1
Cell and Margin Means on Credibility and Involvement

Dependent Variable: Credibility						High	23.64 (n=37)
Independent Variable:							[8.00]
Credibility		High		Low		Low	33.19 (n=34)
							[9.49]
Independent Variable:							
Involvement		High	Low	High	Low	High	27.39 (n=33)
							[10.68]
		21.58 (n=17)	25.38 (n=20)	33.56 (n=16)	32.86 (n=18)	Low	28.93 (n=33)
							[9.30]
		[9.00]	[5.78]	[8.82]	[10.29]		
Independent Variable:							
Role Groups							
Administrator		24.50 (n=4)	26.14 (n=7)	34.80 (n=5)	38.89 (n=4)	Administrator	30.53 (n=20)
							[9.22]
		[7.14]	[4.98]	[9.26]	[10.35]		
Evaluator		20.69 (n=13)	24.98 (n=13)	33.00 (n=11)	31.14 (n=14)	Evaluator	27.31 (n=51)
							[10.13]
		[9.57]	[7.74]	[9.02]	[9.97]		
						Total	28.21 (n=71)
							[9.92]
Dependent Variable: Involvement						High	21.78 (n=33)
Independent Variable:							[13.51]
Involvement		High		Low		Low	22.50 (n=38)
							[14.44]
Independent Variable:							
Credibility		High	Low	High	Low	High	22.55 (n=37)
							[14.70]
		21.94 (n=17)	21.62 (n=16)	23.07 (n=20)	21.87 (n=18)		
						Low	21.75 (n=34)
							[13.22]
		[13.83]	[13.61]	[15.74]	[13.26]		
Independent Variable:							
Role Groups							
Administrator		20.00 (n=4)	14.43 (n=5)	25.29 (n=7)	23.75 (n=4)	Administrator	21.21 (n=20)
							[14.32]
		[12.03]	[8.21]	[16.35]	[20.11]		
Evaluator		22.54 (n=13)	24.88 (n=11)	21.88 (n=13)	21.33 (n=14)	Evaluator	22.54 (n=51)
							[13.88]
		[14.74]	[14.60]	[15.95]	[11.63]		
						Total	22.17 (n=71)
							[13.92]

Note. Standard deviations are presented in brackets.

Figure 1
Geographic Distribution



Note. The first number represents total responses per area.
The second number represents administrators per area.
The third number represents evaluators per area.